

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 09/830,011

Source: 1Fw16

Date Processed by STIC: 9/19/05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/830,011

TIME: 10:45:25

Input Set : A:\65064135.app

Output Set: N:\CRF4\09192005\I830011.raw

```

3 <110> APPLICANT: SMYTHE, MARK LESLIE
4      DOOLEY, MICHAEL JOHN
5      ANDREWS, PETER RONALD
7 <120> TITLE OF INVENTION: PROTEIN ENGINEERING
9 <130> FILE REFERENCE: 065064-0135
11 <140> CURRENT APPLICATION NUMBER: 09/830,011
12 <141> CURRENT FILING DATE: 2001-07-23
14 <150> PRIOR APPLICATION NUMBER: PCT/AU99/00914
15 <151> PRIOR FILING DATE: 1999-10-21
17 <150> PRIOR APPLICATION NUMBER: AU PP 6606
18 <151> PRIOR FILING DATE: 1998-10-21
20 <160> NUMBER OF SEQ ID NOS: 26
22 <170> SOFTWARE: PatentIn Ver. 3.3
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 31
26 <212> TYPE: PRT
27 <213> ORGANISM: Leiurus quinquestriatus
29 <400> SEQUENCE: 1
30 Ala Phe Cys Asn Leu Arg Met Cys Gln Leu Ser Cys Arg Ser Leu Gly
31   1             5             10             15
33 Leu Leu Gly Lys Cys Ile Gly Asp Lys Cys Glu Cys Val Lys His
34   20             25             30
37 <210> SEQ ID NO: 2
38 <211> LENGTH: 30
39 <212> TYPE: PRT
40 <213> ORGANISM: Artificial Sequence
42 <220> FEATURE:
43 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
44   peptide
46 <400> SEQUENCE: 2
47 Ala Phe Cys Asn Leu Arg Lys Cys Gln Asp Lys Cys Glu Thr Phe Gly
48   1             5             10             15
50 Leu Leu Gly Lys Cys Ile Gly Asp Lys Cys Glu Cys Val Lys
51   20             25             30
54 <210> SEQ ID NO: 3
55 <211> LENGTH: 30
56 <212> TYPE: PRT
57 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
61   peptide
63 <400> SEQUENCE: 3
64 Ala Phe Cys Asn Leu Asp Lys Cys Ser Thr Phe Cys Arg Ile Phe Gly

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/830,011

TIME: 10:45:25

Input Set : A:\65064135.app

Output Set: N:\CRF4\09192005\I830011.raw

```

65      1              5              10              15
67 Leu Leu Gly Lys Cys Ile Gly Asp Lys Cys Glu Cys Val Lys
68              20              25              30
71 <210> SEQ ID NO: 4
72 <211> LENGTH: 30
73 <212> TYPE: PRT
74 <213> ORGANISM: Artificial Sequence
76 <220> FEATURE:
77 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
78     peptide
80 <400> SEQUENCE: 4
81 Ala Phe Cys Asn Leu Ser Lys Cys Ser Thr Phe Cys Arg Thr Leu Gly
82      1              5              10              15
84 Leu Leu Gly Lys Cys Ile Gly Asp Lys Cys Glu Cys Val Lys
85              20              25              30
88 <210> SEQ ID NO: 5
89 <211> LENGTH: 27
90 <212> TYPE: PRT
91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
95     peptide
97 <400> SEQUENCE: 5
98 Cys Arg Leu Tyr Lys Cys Gln Asp Glu Cys Arg Ile Leu Gly Leu Leu
99      1              5              10              15
101 Gly Lys Cys Ile Gly Asp Lys Cys Glu Cys Gly
102              20              25
105 <210> SEQ ID NO: 6
106 <211> LENGTH: 17
107 <212> TYPE: PRT
108 <213> ORGANISM: Homo sapiens
110 <400> SEQUENCE: 6
111 Cys Phe Arg Lys Asp Met Asp Lys Val Glu Thr Phe Leu Arg Ile Val
112      1              5              10              15
114 Gln
118 <210> SEQ ID NO: 7
119 <211> LENGTH: 45
120 <212> TYPE: PRT
121 <213> ORGANISM: Cerebratulus lacteus
123 <400> SEQUENCE: 7
124 Ala Cys Glu Asn Asn Cys Arg Lys Lys Tyr Asp Leu Cys Ile Arg Cys
125      1              5              10              15
127 Gln Gly Lys Trp Ala Gly Lys Arg Gly Lys Cys Ala Ala His Cys Ile
128              20              25              30
130 Ile Gln Lys Asn Asn Cys Lys Gly Lys Cys Lys Lys Glu
131              35              40              45
134 <210> SEQ ID NO: 8
135 <211> LENGTH: 45
136 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/830,011

TIME: 10:45:25

Input Set : A:\65064135.app

Output Set: N:\CRF4\09192005\I830011.raw

```

137 <213> ORGANISM: Artificial Sequence
139 <220> FEATURE:
140 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
141     peptide
143 <400> SEQUENCE: 8
144 Ala Cys Arg Lys Asp Cys Asp Lys Lys Glu Thr Phe Cys Ile Arg Cys
145   1           5           10           15
147 Gln Gly Lys Phe Ala Gly Lys Asp Gly Asn Cys Ala Ala Arg Cys Ile
148           20           25           30
150 Arg Leu His Gln Leu Cys Phe Gly Lys Cys Ala Lys Glu
151           35           40           45
154 <210> SEQ ID NO: 9
155 <211> LENGTH: 17
156 <212> TYPE: PRT
157 <213> ORGANISM: Homo sapiens
159 <400> SEQUENCE: 9
160 Cys Phe Arg Lys Asp Met Asp Lys Val Glu Thr Phe Leu Arg Ile Val
161   1           5           10           15
163 Gln
167 <210> SEQ ID NO: 10
168 <211> LENGTH: 16
169 <212> TYPE: PRT
170 <213> ORGANISM: Homo sapiens
172 <400> SEQUENCE: 10
173 Asp Asn Ala Met Leu Arg Ala His Arg Leu His Gln Leu Ala Phe Asp
174   1           5           10           15
177 <210> SEQ ID NO: 11
178 <211> LENGTH: 34
179 <212> TYPE: PRT
180 <213> ORGANISM: Artificial Sequence
182 <220> FEATURE:
183 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
184     peptide
186 <400> SEQUENCE: 11
187 Phe Asn Met Gln Cys Gln Arg Arg Phe Tyr Glu Ala Leu His Asp Pro
188   1           5           10           15
190 Asn Leu Asn Glu Glu Gln Arg Asn Ala Lys Ile Lys Ser Ile Arg Asp
191           20           25           30
193 Asp Cys
197 <210> SEQ ID NO: 12
198 <211> LENGTH: 34
199 <212> TYPE: PRT
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
204     peptide
206 <400> SEQUENCE: 12
207 Phe Asn Tyr Asp Cys Gln Lys Asp Phe Glu Glu Gly Leu Gln Thr Pro
208   1           5           10           15

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/830,011

TIME: 10:45:25

Input Set : A:\65064135.app

Output Set: N:\CRF4\09192005\I830011.raw

```

210 Gly Leu Asn Glu Glu Arg Arg Asn Asp Asn Ile Lys Leu Arg Arg Asp
211           20           25           30
213 Arg Cys
217 <210> SEQ ID NO: 13
218 <211> LENGTH: 19
219 <212> TYPE: PRT
220 <213> ORGANISM: Homo sapiens
222 <400> SEQUENCE: 13
223 Ala Ser Asp Ser Asn Val Tyr Asp Leu Leu Lys Asp Leu Glu Glu Gly
224   1           5           10           15
226 Ile Gln Thr
230 <210> SEQ ID NO: 14
231 <211> LENGTH: 21
232 <212> TYPE: PRT
233 <213> ORGANISM: Homo sapiens
235 <400> SEQUENCE: 14
236 Phe Pro Thr Ile Pro Leu Ser Arg Leu Phe Asp Asn Ala Met Leu Arg
237   1           5           10           15
239 Ala His Arg Leu His
240           20
243 <210> SEQ ID NO: 15
244 <211> LENGTH: 38
245 <212> TYPE: PRT
246 <213> ORGANISM: Euplotes raikovi
248 <400> SEQUENCE: 15
249 Asp Leu Cys Glu Gln Ser Ala Leu Gln Cys Asn Glu Gln Gly Cys His
250   1           5           10           15
252 Asn Phe Cys Ser Pro Glu Asp Lys Pro Gly Cys Leu Gly Met Val Trp
253           20           25           30
255 Asn Pro Glu Leu Cys Pro
256           35
259 <210> SEQ ID NO: 16
260 <211> LENGTH: 38
261 <212> TYPE: PRT
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
266     peptide
268 <220> FEATURE:
269 <221> NAME/KEY: MOD_RES
270 <222> LOCATION: (28)
271 <223> OTHER INFORMATION: Norleucine
273 <400> SEQUENCE: 16
274 Asp Leu Cys Glu Gln Gly Ala Leu Gln Cys Gly Glu Thr Phe Cys Arg
275   1           5           10           15
W--> 277 Ile Ala Cys Ser Pro Arg Asp Lys Asp Asn Cys Xaa Leu Arg Val His
278           20           25           30
280 Arg Pro Ala Leu Cys Ala
281           35

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/830,011

TIME: 10:45:25

Input Set : A:\65064135.app

Output Set: N:\CRF4\09192005\I830011.raw

```

284 <210> SEQ ID NO: 17
285 <211> LENGTH: 38
286 <212> TYPE: PRT
287 <213> ORGANISM: Artificial Sequence
289 <220> FEATURE:
290 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
291     peptide
293 <220> FEATURE:
294 <221> NAME/KEY: MOD_RES
295 <222> LOCATION: (28)
296 <223> OTHER INFORMATION: Norleucine
298 <400> SEQUENCE: 17
299 Asp Leu Cys Glu Gln Gly Ala Leu Gln Cys Gly Ser Thr Phe Cys Arg
300   1             5             10             15
W--> 302 Thr Ala Cys Ser Pro Arg Asp Lys Asp Asn Cys Xaa Leu Arg Val Asp
303             20             25             30
305 Arg Pro Ala Leu Cys Ala
306             35
309 <210> SEQ ID NO: 18
310 <211> LENGTH: 38
311 <212> TYPE: PRT
312 <213> ORGANISM: Artificial Sequence
314 <220> FEATURE:
315 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
316     peptide
318 <220> FEATURE:
319 <221> NAME/KEY: MOD_RES
320 <222> LOCATION: (28)
321 <223> OTHER INFORMATION: Norleucine
323 <400> SEQUENCE: 18
324 Asp Leu Cys Glu Gln Ser Ala Leu Gln Cys Asn Ser Thr Gly Cys Arg
325   1             5             10             15
W--> 327 Thr Phe Cys Ser Pro Arg Asp Asx Asp Asn Cys Xaa Leu Arg Val Asp
328             20             25             30
330 Arg Pro Ala Leu Cys Ala
331             35
334 <210> SEQ ID NO: 19
335 <211> LENGTH: 8
336 <212> TYPE: PRT
337 <213> ORGANISM: Homo sapiens
339 <400> SEQUENCE: 19
340 Val Glu Thr Phe Leu Arg Ile Val
341   1             5
344 <210> SEQ ID NO: 20
345 <211> LENGTH: 14
346 <212> TYPE: PRT
347 <213> ORGANISM: Homo sapiens
349 <400> SEQUENCE: 20
350 Ser Arg Leu Phe Asp Asn Ala Met Leu Arg Ala His Arg Leu

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/830,011

DATE: 09/19/2005
TIME: 10:45:26

Input Set : A:\65064135.app
Output Set: N:\CRF4\09192005\I830011.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:16; Xaa Pos. 28 ✓

Seq#:17; Xaa Pos. 28 ✓

Seq#:18; Xaa Pos. 28 ✓

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/830,011

DATE: 09/19/2005

TIME: 10:45:26

Input Set : A:\65064135.app

Output Set: N:\CRF4\09192005\I830011.raw

L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:16

L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:16

L:327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:16